



# TO STUDY THE IMPACT OF MEDIA MULTITASKING TO DRAW CORRELATIONS BETWEEN DIFFERENT AGE SEGMENTS

Siddharth Gupta

Research Scholars Program, Harvard Student Agencies, In collaboration with Learn with Leaders

## ABSTRACT

**Purpose:** The aim of this study is to investigate the impact of media multitasking on cognitive, emotional, and behavioural well-being of individuals within the general Indian population. Using digital technology as a tool for multitasking is known as 'media multitasking'. This is becoming part of most age groups, from students to senior citizens for projects, work, entertainment, etc. Emerging research is showing significant effects, both positive and negative, of digital gadgets on humans.

**Method:** An online cross-sectional survey was done over a period of 4 weeks on two age groups in the Indian population. Group 1 (16-25 years old) had 127 consenting subjects (males-78, females-49), while Group 2 (45-55 years old) had 157 consenting subjects (male-71, female-86). An online form (with 12 non-demographic questions) was answered by both groups in relation to the role of digital gadgets while multitasking in their day-to-day work.

**Result:** A significant difference in the feeling of happiness was found in both groups ( $p = 0.004$ ). The majority of participants in Group 1 (62.20%) with the younger population felt happy at the end of the day as compared to Group 2 (45.22%) while using media multitasking.

**Conclusion:** Our cross-sectional study shows that, in the Indian population, the younger generation (Group 1) is happier with media multitasking as a tool in their day-to-day lives as compared to the older generation (Group 2). The reasons were more personal time and achieving weekly targets (Group 1) as compared to less time for family and oneself (Group 2).

**KEYWORDS:** Media Multitasking

## INTRODUCTION

Digital technology has emerged as an important tool in the last few decades in our day-to-day lives, especially in the last 5-6 years. During and after COVID-19 use of digital gadgets has extended from office work to school and college projects by students and as a source of entertainment, shopping, etc. by most of the general population. The obvious difference seen in the last few years is the use of digital gadgets as a tool for multitasking. Hence, it is termed 'media multitasking'. Media multitasking is using digital technology to accomplish more than one task at a time.

Multitasking itself is an age-old skill; parents cooking and teaching children, going for an evening walk while talking on the phone, eating while watching television, etc. are some examples of multitasking. Digital gadgets and the internet have been game changers; for instance, a student can attend an online class while simultaneously chatting online or doing an internet search, handle more than one project at work, or be part of more than one online meeting simultaneously, among many other examples. These are instances of media multitasking. Such a form of multitasking has only been possible because of advanced digital technology.

Every new advancement carries its own pros and cons. There is

a lot of data supporting multitasking and vice versa. But what about media multitasking? Is media multitasking effective? Is it efficient? The general consensus is that multitasking helps one create more time for them; however, is this true practically? To find that out, we reached out to two age groups. The younger age group (Group 1) comprised high school and college students and early job seekers, while Group 2 included participants from the older population handling work and family.

## AIM

The aim of this research is to investigate the impact of media multitasking on the cognitive, emotional, and behavioural well-being of individuals within the general Indian population. We also compared the effect of media multitasking between two age groups.

## METHOD

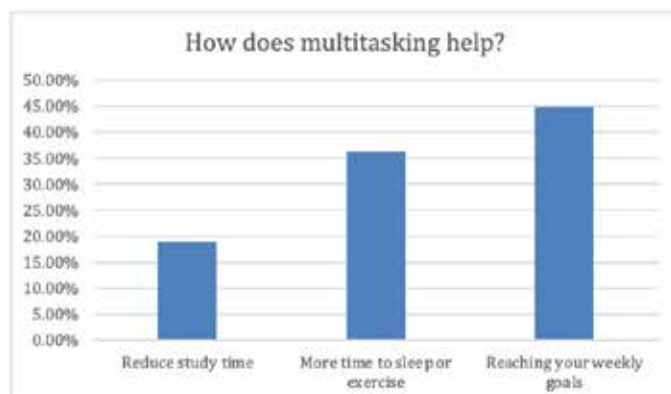
A survey was conducted with the help of Google Forms on two separate age groups over a period of 4 weeks. Group 1 (16-25 years old) had 127 consenting subjects (males - 78, females - 49), while Group 2 (45-55 years old) had 157 consenting subjects (male - 71, female - 86). Using the online forms, we recorded the perceptions of both groups on the role of media multitasking and its effect on their daily lives. For data analysis, the chi square formula was used to find the p value. The findings

from the survey have been presented throughout the paper. Various graphs have been used to depict the significant findings from both groups.

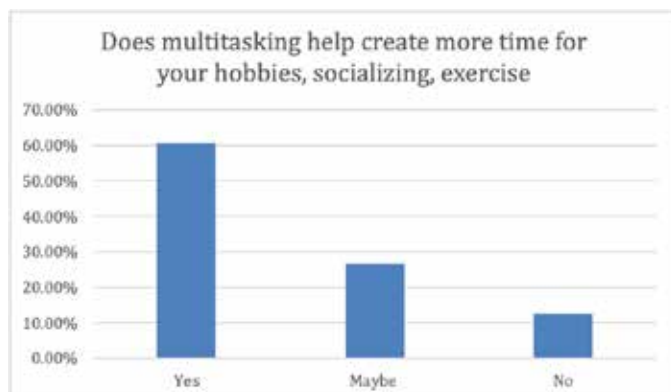
## RESULTS

After 4 weeks, data from Group 1 (15-25 years) showed that 62.2% (n=79) respondents were happy, while 37.8% (n=48) respondents felt they were stressed by using media multitasking as a tool in their daily schedule. The responses from Group 2 (45-55 years) showed that the majority (54.8%, n=71) felt stressed and 45.2% (n=86) were happy at the end of their day with media multitasking.

A significant difference in the feeling of happiness was found in both groups ( $p = 0.004$ ), with Group 1 being more happy than Group 2. On further analysis, it was found that the younger generation (Group 1) felt media multitasking benefited them in two aspects - 44.88% (n = 57) were able to reach their weekly goals (Graph 1), and 60.60% (n = 77) could take out more personal time (Graph 2). These two parameters were important for the feeling of happiness or satisfaction (n = 79, 62%) with media multitasking as a daily tool in Group 1, showing that for them, multitasking was a tool to prioritize their tasks and create more time for things they like doing besides study or work. Interestingly, 36.20% of respondents (Graph 1) in Group 1 found more time to sleep or exercise. These results show that media multitasking increased their overall efficiency.

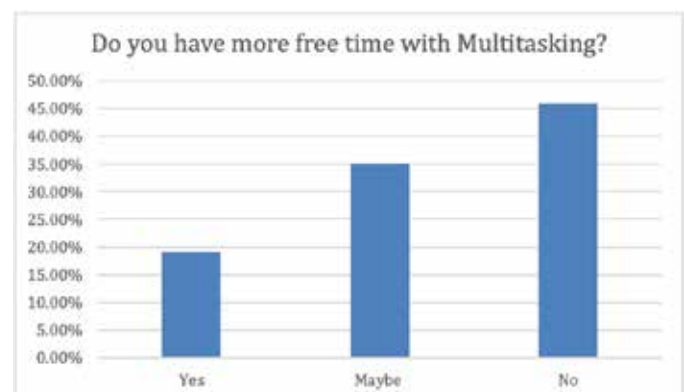


Graph 1: Benefits of Media Multitasking in Group 1 (15-25 years)

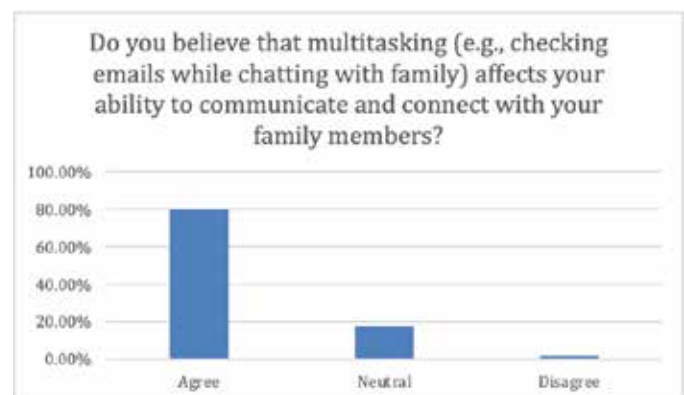


Graph 2: Personal time with Media Multitasking in Group 1 (15-25 years)

On the other hand, in the mature or older population of Group 2 (45-55 years), a drastically different result was found. 45.85% (n = 72) felt a definite lack of personal time (Graph 3), and 80% (n = 126) agreed that media multitasking affected their ability to communicate with their family (Graph 4). These contributed to the feeling of stress or dissatisfaction (n = 86, 54.77%) while using media multitasking as a daily tool. Spending extensive time with technology means less time is spent communicating face to face. This puts stress on the social aspect of one's life. Since family is important and multitasking hinders communication with the family, this could be another reason for the low happiness quotient in Group 2. This clearly shows that the negative effects of multitasking gradually caught up with the older generation.

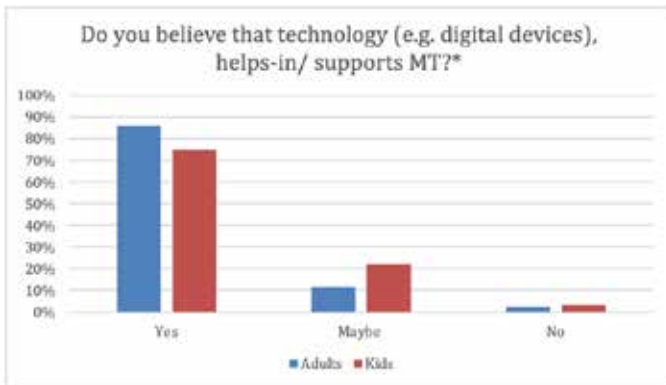


Graph 3: Less personal time with Media Multitasking in Group 2 (45-55 years)



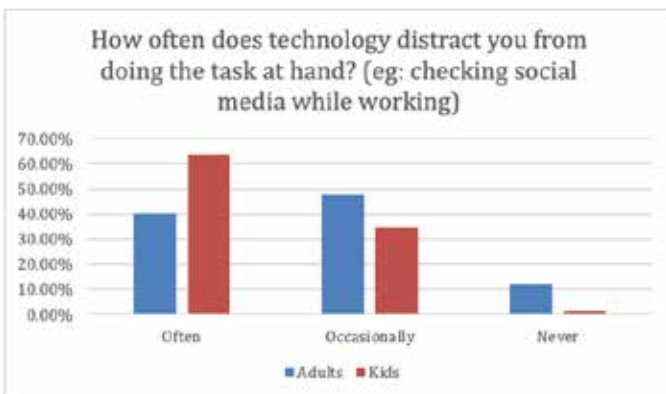
Graph 4: Decreased communication with family in Group 2 (45-55 years)

On further analyzing the answers in both groups, it was seen that most people believe that technology helps with multitasking (Graph 5). Group 1 (74.8%) and Group 2 (86%) support this thought; this is how media multitasking was adopted.



Graph 5: Role of technology in Multitasking

We also found that both groups felt that media multitasking has a drawback, which is that it is a source of distraction. Group 1, comprising the younger population, was prone to getting distracted (63.8%) more than Group 2 (40.1%), which consisted of the older generation (Graph 6). A low percentage (12.1%) of group 2 thinks technology is not a distraction, which may be because they would have developed self-restraint over time. In Group 1, only 1.6% think that the media is not a distraction. The younger population has a long way to go as far as avoiding distraction is concerned.



Graph 6: Media multitasking and Distraction

## DISCUSSION

Considering that multitasking existed even before the advent of technology, the only difference is the form in which it is now done. For example, cooking multiple dishes at one time, taking an oral exam while checking their papers, etc. Slowly, technology has entered our lives in the last few decades, initially in the field of work, followed by entertainment, and so on. Now technology is being used by most age groups, from children to the elderly. Ideally, technology should help a person work faster with better efficiency. If it were the case of machines, like robots, then the answer would be simple, better efficiency with advanced technology. But that does not hold true for humans. Emotions and mental and physical well-being also are impacted by change in method work, education, etc. The present study was aimed at not only assessing the efficacy but also the quotient of happiness and well-being in the general Indian population with the use of technology, especially digital gadgets. Group 1, with a younger population (15-25 years), use digital gadgets for studies, projects, entertainment, shopping, jobs, etc. Group 2 (45-55 years old), consisting of the older

generation, again had similar use of technology in their day-to-day lives, i.e. entertainment, work, shopping, etc. So, why the difference in the happiness quotient in both age groups?

From the results of this study, we could see that the happiness quotient with technology is higher in Group 1 (15-25 years) than in Group 2 (45-55 years). From the data, it was found that Group 1 felt media multitasking helped them achieve their weekly goals, created more time for exercise/sleep and also gave them more personal time. On the other hand, group 2 (45-55 years old) was not very happy with media multitasking.

The question that demands attention is, is Group 1 really happy with technology? Or has the older age group experienced the negative side of technology? We also see more distractions in the younger age group as compared to the older age group. Previous studies have shown that technology can cause impacts such as attentional impulsivity on task performance, reduced attention, impaired social and emotional intelligence, and a decrease in sleep quality. This, in turn, can affect the mental, physical, and social aspects of an individual's life over time.

Alternatively, another thought comes to mind: is the older generation able to use technology for media multitasking as efficiently as compared to the younger generation? Studies have shown that adoption of technology by the older generation can take more time, despite the technology being user friendly. This could be another probable reason for the older generation to find media multitasking more stressful as compared to the younger generation.

This study group consists of urban working-class people who have access to the internet and technology. It cannot be called a true representation of the whole group as the opinions of the people without access to the technology have not been considered.

## SIMILAR STUDIES

Multiple studies have been done to measure the role of Media Multitasking on cognitive abilities, attention span, impulsivity, etc. In 2015, Melina found that media multitasking is associated with defects in cognitive abilities that are critical in our daily lives, such as holding information in the mind and retrieving information, leading to increased impulsive behavior (Melina, 2015). According to another study published in 2017, media multitasking behavior is associated with a reduced magnitude of implicit learning. It also supports the theory that media multitaskers differ in their scope of attention, meaning they have reduced attention (Edwards, 2017). Due to inconsistent findings in previous studies, researchers are wondering whether media multitasking is actually related to cognitive functioning, attention, and impulsivity (Rioja, 2023). This research paper adds data in support of the fact that media multitasking does have a role in creating distraction, as seen in Graph 6 in the present study.

Wilmer (2019), in their study, found that using one medium for a longer period of time is better than using multiple types of media for a shorter period of time. This could mean that media

multitasking interferes with the development of cognitive control abilities (Ophir, 2009). A similar result can be seen in our research, where using media multitasking in daily work distracts both Group 1 and Group 2 from the task at hand.

The earlier thought process was that media multitasking is done out of boredom. Allsion C Drody (2022), in their study, found totally different results, where no direct evidence to support the notion that boredom leads to multitasking was found.

In our study, most of the participants from both groups think that technology helps with media multitasking. One possible reason for this could be that they are proficient in using media for multitasking. According to Ophir (2009), long term media multitaskers exhibit advantages in cognitive control (impulsiveness), which could also influence them to do heavy multitasking. Our data also supports this finding, as most of the participants from both groups think technology supports multitasking in their daily lives.

Along with reduced attention span, media multitasking also brings about impulsivity, particularly in the younger generation. Researchers at Yahoo found that 43.5% use the internet for shopping. Of the 43.5%, 33.4% are impulsive buyers. As young people engage in media multitasking more frequently, their urge to buy things on impulse becomes stronger (Chang, 2017). Although the research conducted by Chang was with different demographics, it is still applicable to the urban Indian population. Previously, an assumption was made that Group 2 may not have been able to use technology for media multitasking as efficiently as compared to Group 1; this might be true. A study of adults over the age of 65 shows that the participants are more loyal to print media such as newspapers and books, which they prefer to read in a low distraction environment (Kononova, 2019), showing that the older generation takes greater time to adapt to change as compared to the younger generation.

## CONCLUSION

The purpose of this study was to analyze the role of media multitasking on efficacy, family relations, social life, etc. in both groups. Using media multitasking as a tool in one's daily life, the younger age group (Group 1) felt a positive impact as compared to the older age group (Group 2) in their happiness quotient. At the end of the day, the emotional state of Group 1 was much better than that of Group 2.

Group 1 was able to reach weekly goals and take out personal time better with media multitasking. While Group 2 felt media multitasking had a negative effect on their family interaction and impacted their personal time, Overall, the happiness quotient of Group 1 was higher than that of Group 2.

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